



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,900	10/02/2003	Dennis W. Crabtree	50049	9672
22929	7590	04/15/2008		
SHAPER ILLER LLP 1800 WEST LOOP SOUTH SUITE 1450 HOUSTON, TX 77027				
EXAMINER				
NGUYEN, DINH Q				
ART UNIT		PAPER NUMBER		
3752				
MAIL DATE		DELIVERY MODE		
04/15/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/677,900

Applicant(s)

CRABTREE ET AL.

Examiner

Dinh Q. Nguyen

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindsay (U.S. Patent No. 3,647,002) in view of Steingass et al. (U.S. Patent No. 5,312,048).

Lindsay discloses a fire fighting nozzle 85 comprising: a proportioner 11, an additive passageway 33 in fluid communication with a fire fighting liquid conduit 83, a discharge orifice 17/23 varies in size with the supply pressure for regulating discharge pressure, structural elements 33/35/37/41/19 defining a variable opening associated with the additive passageway 33 that is automatically varied in response to variation in sizes of the discharge orifice, or a valve 33/35/37/41/19 associated with the additive passageway 33 that is automatically varied in response to variation in sizes of the discharge orifice, and a ratio selector 77 with at least two settings (see figure) discloses. Lindsay does not teach the liquid conduit of the fire-fighting nozzle that has a variable discharge orifice. However, Steingass et al. discloses a discharge pressure regulating fire fighting nozzle with a fire fighting liquid conduit 21 with flow 27 and a discharge orifice 98 that varies in sizes (see Figures 2 and 3). Therefore, it

would have been obvious to one having ordinary skill in the art to have provided the device of Lindsay with a fire-fighting nozzle that has a variable discharge orifice as suggested by Steingass et al. Doing so would provide a way to maintain a constant pressure for a fire fighting nozzle (see Steingass column 1, lines 15+).

Response to Arguments

3. Applicant's arguments filed December 12, 2006 have been fully considered but they are not persuasive. The Examiner respectfully traverses the Applicant arguments, the Applicant arguments narrower than the claims limitations. The Applicant "additive passageway" is in fluid communication with a fire fighting liquid conduit of the nozzle, thus the "additive passageway" does not have to locate within the nozzle, and the fire fighting liquid conduit that is belonging to the nozzle and does not have to locate within the nozzle. The Lindsay's fire fighting nozzle 85 has a fire fighting liquid conduit 83 for providing a flow of the fire fighting liquid, and the Lindsay's additive passageway 65 is in fluid communication with the fire fighting liquid conduit 83 of the nozzle 85, the primary fire fighting fluid flows through conduit 53 can be varies by suitable valves (shown with nozzle 85) form 50-1500 gallons per minutes , the proportioner 11 automatically adjust the amount of foam concentrate 57 by a variable opening/adjustable opening (tapered passageway 33 and valve means 35) associated with the additive passageway 65 (see Lindsay's column 3, lines 34+) thus the Lindsay's nozzle is self-metering. The Steingass is cited for the discharge orifice 98 that varies in sizes or pressure regulating with the pressure

of the supply liquid (see column 5, lines 15-18), because (a) the Lindsay reference and the Steingass et al. reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Lindsay and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. *KSR, International Co. v. Teleflex Inc.*, 550 U.S. (2007).

4. The Affidavit under 37 CFR 1.132 filed on June 14, 2007 have been fully considered and the Examiner is hereby withdrawn the 102 (e) rejection of the previous Office Action dated March 15, 2007.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Q. Nguyen whose telephone number is

Art Unit: 3752

571-272-4907. The examiner can normally be reached on Monday-Thursday 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on 571-272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dinh Q Nguyen/
Primary Examiner, Art Unit 3752

dqn